

## ARCHAEOLOGICAL INVESTIGATIONS OF BOURNE PARK, BISHOPSBOURNE, 2011–2014

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This is a report of the magnetometry (gradiometry), electrical resistance and ground-penetrating radar (GPR) results for the Bourne Park survey between 2011 and 2014 (see Wallace *et al.* 2014 for background information and for seasons 2011 and 2012). The gradiometry results from seasons 2011 and 2012 are reprised here as the survey of a larger area has improved their interpretation. A synthetic, interpretative piece including discussions of nearby archaeological work, artefacts (including metal-detected finds), antiquarian investigations, documentary evidence, topographical survey and aerial photographs will be published separately.

Bourne Park (**Fig. 1**) is an area of open parkland between the villages of Bishopsbourne and Bridge, c.6 km south-east of Canterbury. Several burials from the Bronze Age through to the Anglo-Saxon period attest to the area's character as a significant funerary landscape,<sup>1</sup> and the siting of a large Roman rural complex here (Kent Historic Environment Record (KHER) TR 15 SE 326 – *abbreviated hereafter to the form* K326, etc.) demonstrates that occupation and other activities also took place in this part of the Elham Valley from at least the Roman period. Hundreds of artefacts found in the Park and the immediately surrounding area date from the Bronze Age through to the post-Medieval period.<sup>2</sup>

Gradiometer survey (see **Figs 2–3**) was undertaken over c.50.6ha using Bartington Instruments Grad 601-2 Dual-Sensor Fluxgate Gradiometers (in 30 x 30m grids at 0.25m intervals along traverses of 0.5m spacing). The GPR was undertaken over c.1.7ha in Field 1 West using a Sensors & Software Spidar network, at 500MHz frequency, of several channels, mounted in parallel onto a wooden frame and towed behind an all-terrain vehicle, with a transect spacing of 0.125m and measurements taken every 0.05m. Earth-resistance survey using a Geoscan Research RM15-D Resistance meter in parallel twin-probe configuration (in 30 x 30m grids at 0.5m intervals along traverses of 0.5m spacing) was undertaken in Field 1 West. The data-collection and processing methods employed have been detailed elsewhere (Johnson 2013a and 2013b; Verdonck *et al.* 2013 and 2015; Wallace *et al.* 2014).

### Fields 1 and 3, 2011–2014

An artificial lake lies within Field 1 and the Nailbourne stream runs through both fields. During the excavation of the lake in 1846 and maintenance work in 1898, one cremation and four inhumations were found along with Roman and Medieval

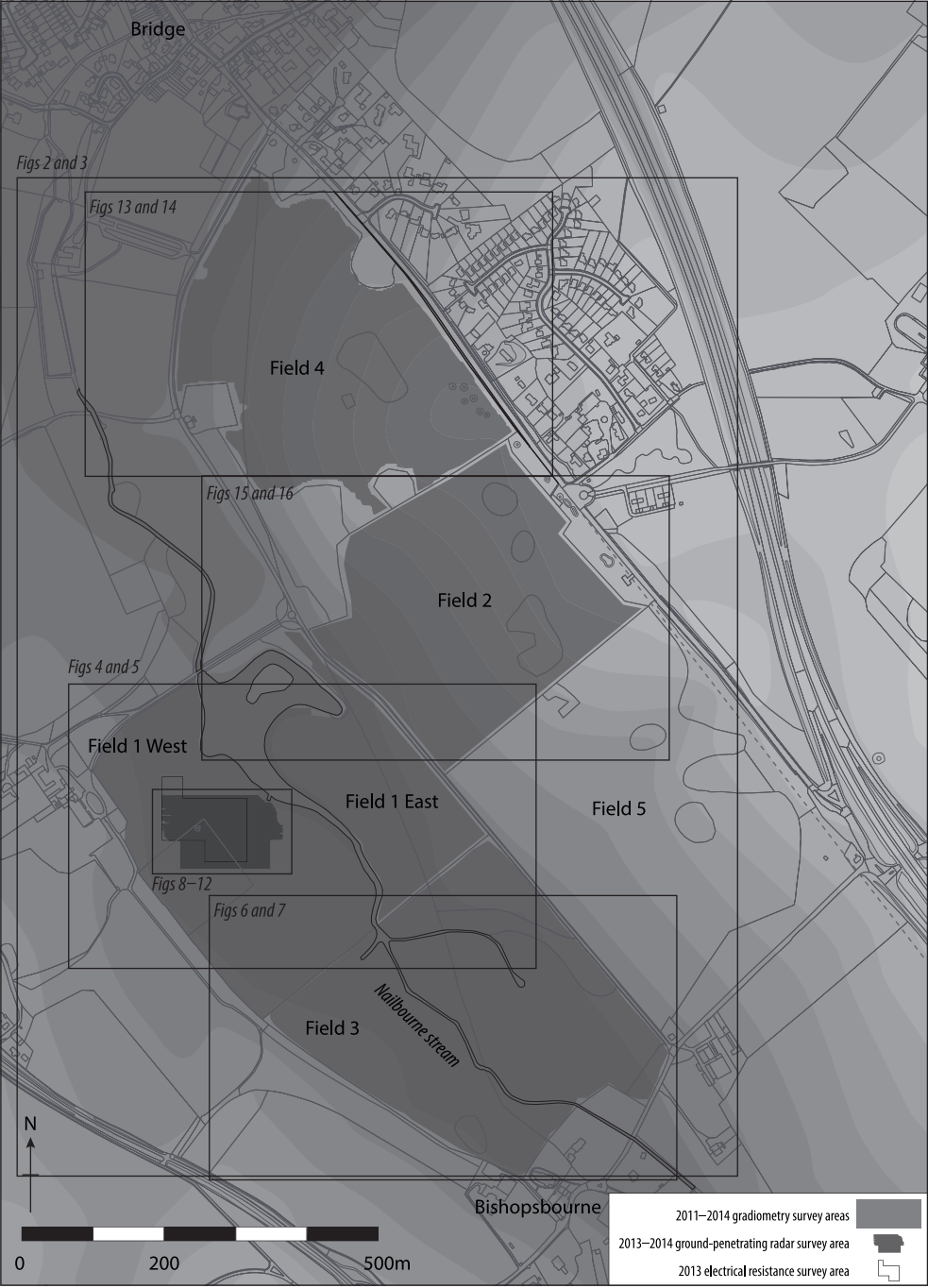


Fig. 1 Bourne Park, Bishopsbourne, showing geophysical survey areas and locations of following figures. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

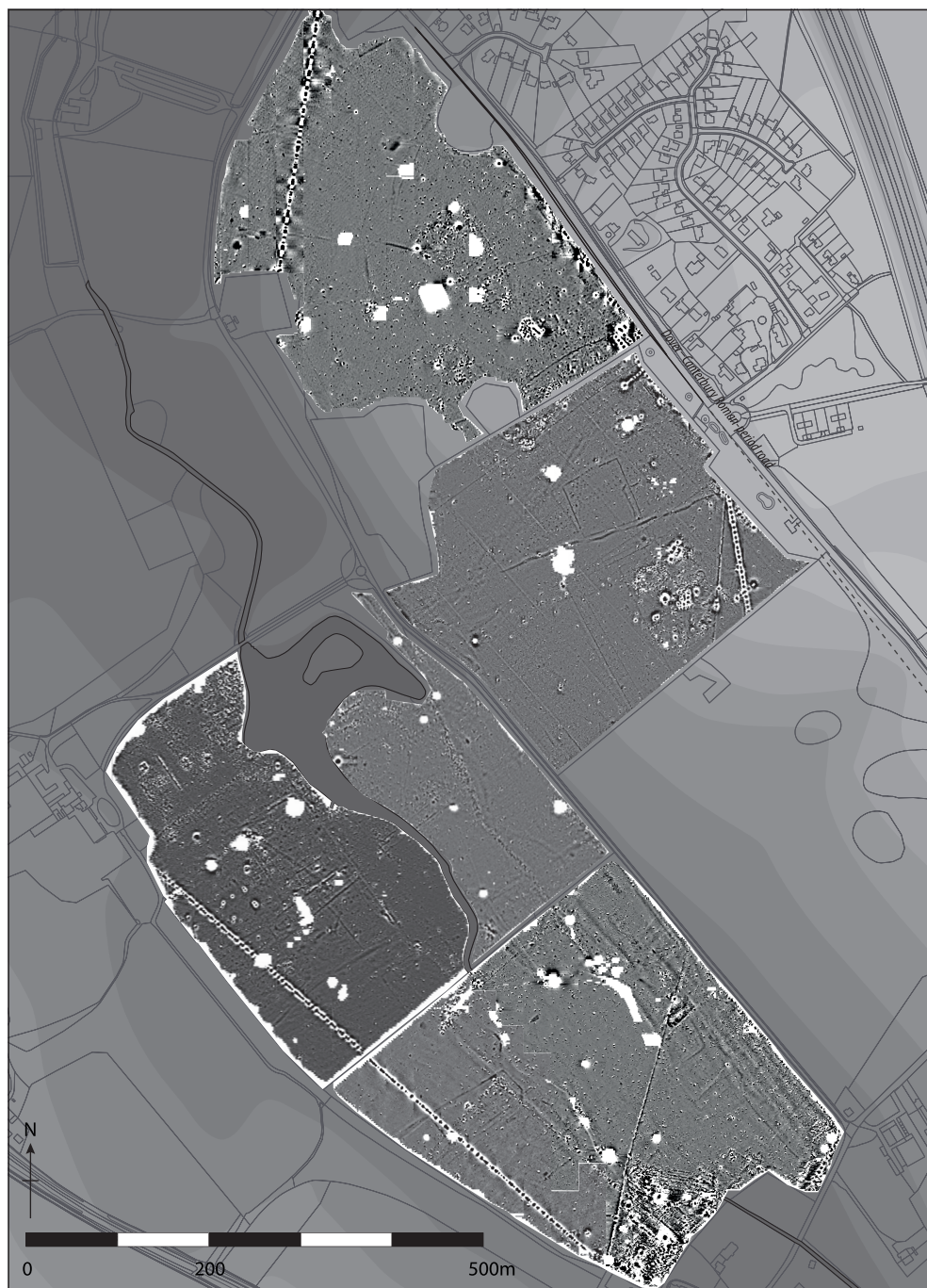


Fig. 2 Bourne Park, Bishopscourne, magnetometry (gradiometry) survey results, 2011–2014. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

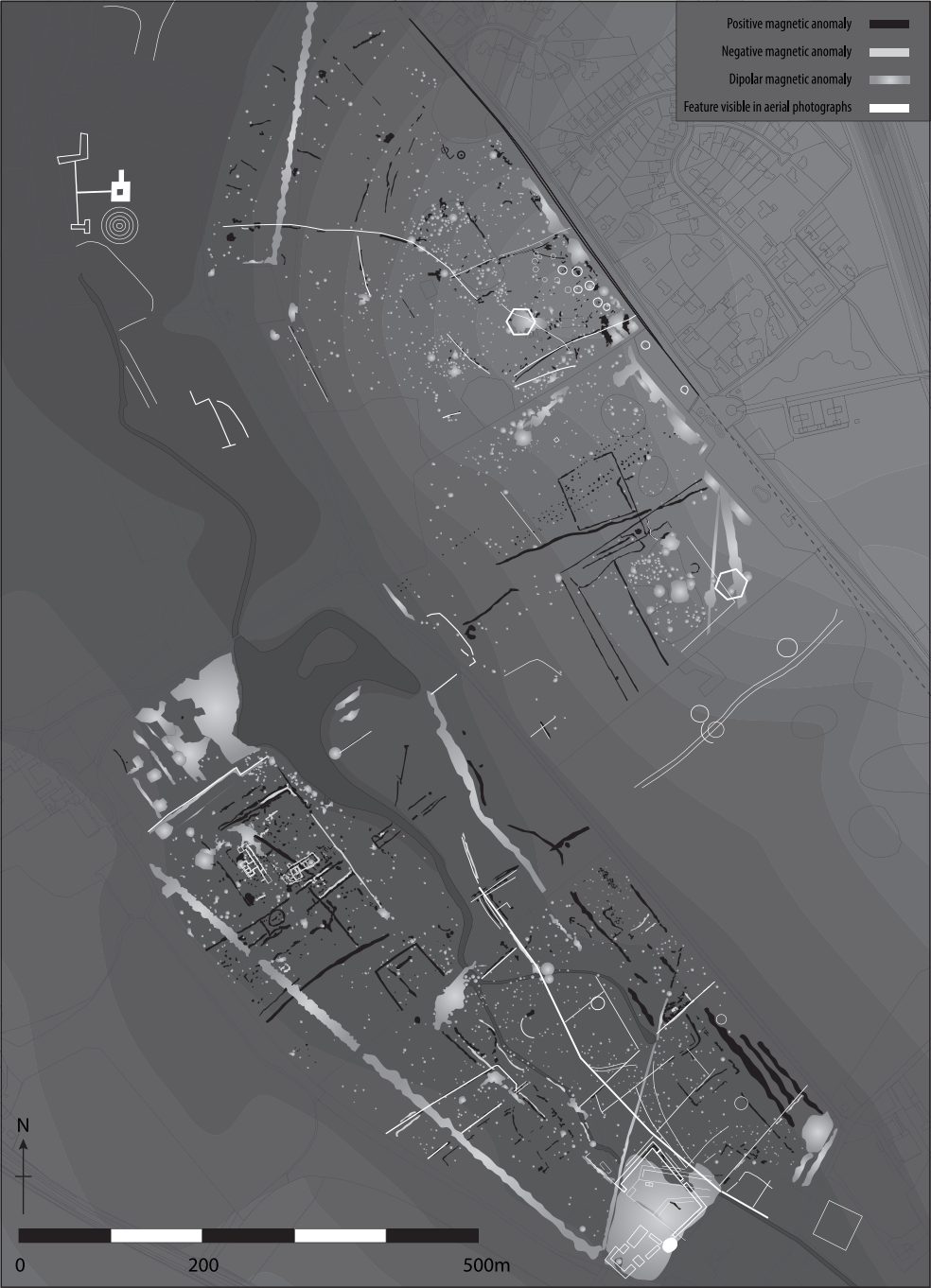


Fig. 3 Bourne Park, Bishopsbourne, magnetometry (gradiometry) survey and aerial photographic interpretations, 2011–2014. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.



artefacts (Bell 1848; 1880–90; K1; Canterbury Museum acc. no. Cancm, 7049). Metal detecting in the 1990s in Field 1 West also uncovered several Roman coins and other artefacts (K328–331). The 17th-century (or earlier) house demolished for the construction of the current Bourne Park House (K28, Historic England list entry number 1298969, dated to c.1701) is thought to lie c.200 yards east of the present house (Bell 1880–90, 13). The current carriage drive at the northern side of Field 1 probably dates to c.1758, as indicated by a plaque on the bridge over the Nailbourne; the previous approach consisted of an avenue of limes running in a straight line between the Dover road and the front of Bourne Park House (Bell 1880–90, 13). A north-south ditch/channel and fish pond (east of the lake) also originally lay in Field 1 East, visible on an Ordnance Survey Drawing of 1797 and described by Bell as extant in 1846 (OSD 107, item number 17; Bell 1880–90, 15).

Within Field 3 lie two natural springs: Spring 1 is larger and more constantly flowing,<sup>3</sup> while Spring 2, sometimes empty of water, feeds into a separate branch of the stream to the east. Along and parallel to Bourne Park Road, there are pronounced river terraces in Field 1 East and Field 3. Another parallel terrace lies west/south-west of the Nailbourne, primarily in Field 3; the 18th- and 19th-century landscaping for a cricket pitch and other features at the front of Bourne Park House are likely to have diminished or removed any related terracing that may have been present in Field 1 West. Ordnance Survey drawings from 1797 (OSD 107 (PT2), item number 6, and OSD 107, item number 17) also show lines of trees occupying the terraces either side of the Nailbourne as well as some field boundaries in Field 3. A complex of farm buildings, called Court Lodge Farm, possibly dating to c.1540 (KHER MKE86425), and small gardens to its north, were extant at the southern end of Field 3 until c.1947–1961.

At least five ditched enclosures were uncovered by the gradiometer survey within Field 1 (**Figs 4–5**). Two large buildings lie within Enclosure 2 which were subsequently explored further with GPR and electrical resistance surveys. The ‘trackway’ visible in aerial photographs in Field 5 may continue as linear positive anomalies in the south-eastern part of Field 1. A possible ditch-lined track extends from the enclosures west of the Nailbourne into Field 1 East; other ditches suggest continuity in alignments across the stream.

In Field 3 (**Figs 6–7**), two enclosures and a number of field boundaries were identified by the gradiometry survey. Ring ditches are visible in aerial photographs but not in the magnetic results. Post-Medieval structural remains (Court Lodge Farm) are clear in aerial photographs but represented by dense dipolar anomalies in the geophysics data, obscuring their form.

### *Detailed description of anomalies and features*

In the northern part of Field 1 West (**Figs 4–5**), dense dipolar anomalies and linear and rectilinear cropmarks probably represent post-Medieval landscaping and, perhaps, the remains of the 17th-century (or earlier) house pre-dating the current Bourne Park House. A linear cropmark and dipolar anomaly [5], representing a possible brick wall with ornamental buttresses [10] and [12], bounds the area of this ‘enclosure’ (Enclosure 1). On the surface there was a dense spread of flint nodules and a large amount of surface and buried iron was noted [1]. A ‘quiet’

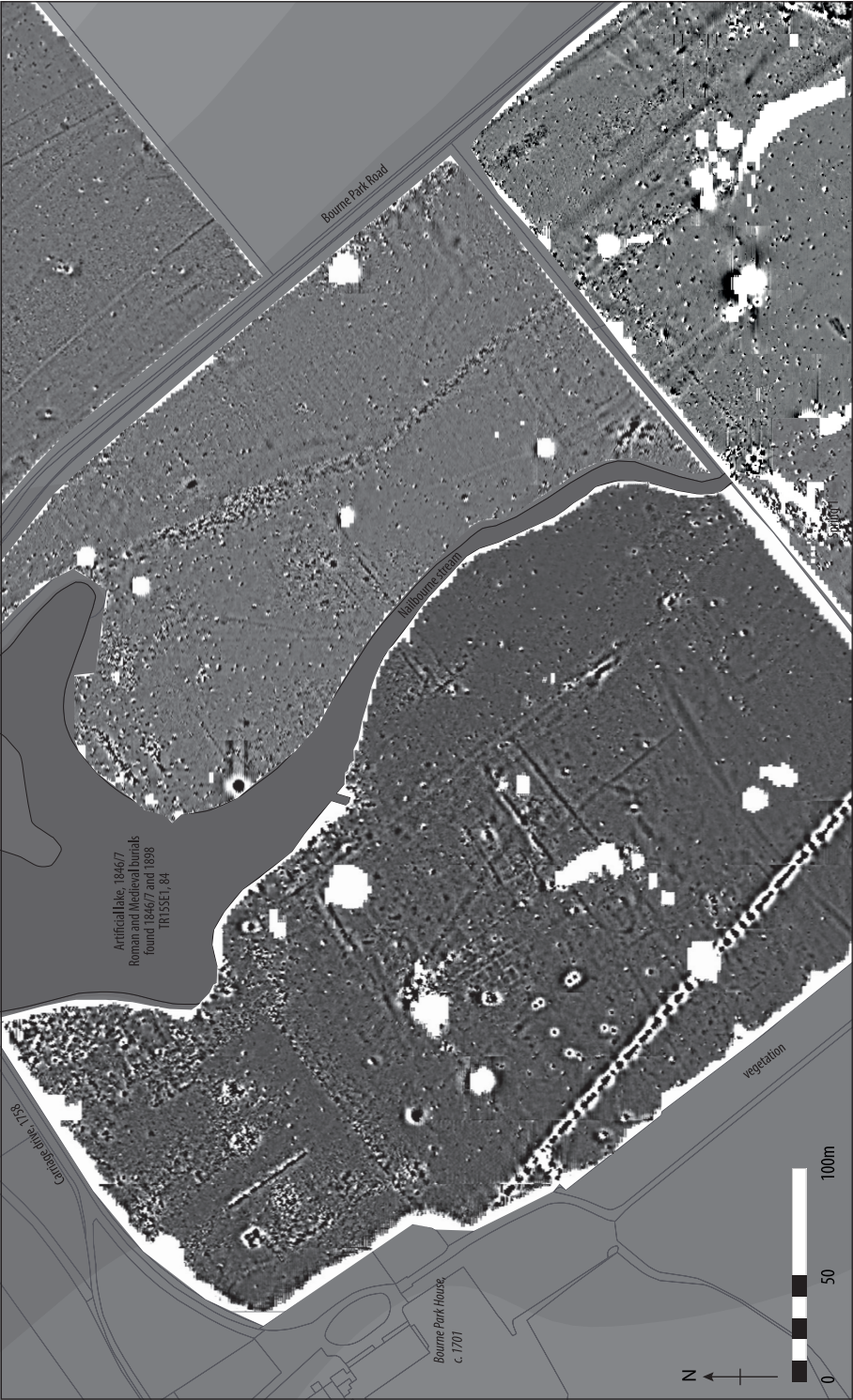


Fig. 4 Field 1, Bourne Park, Bishopscourne, magnetometry (gradiometry) survey results. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

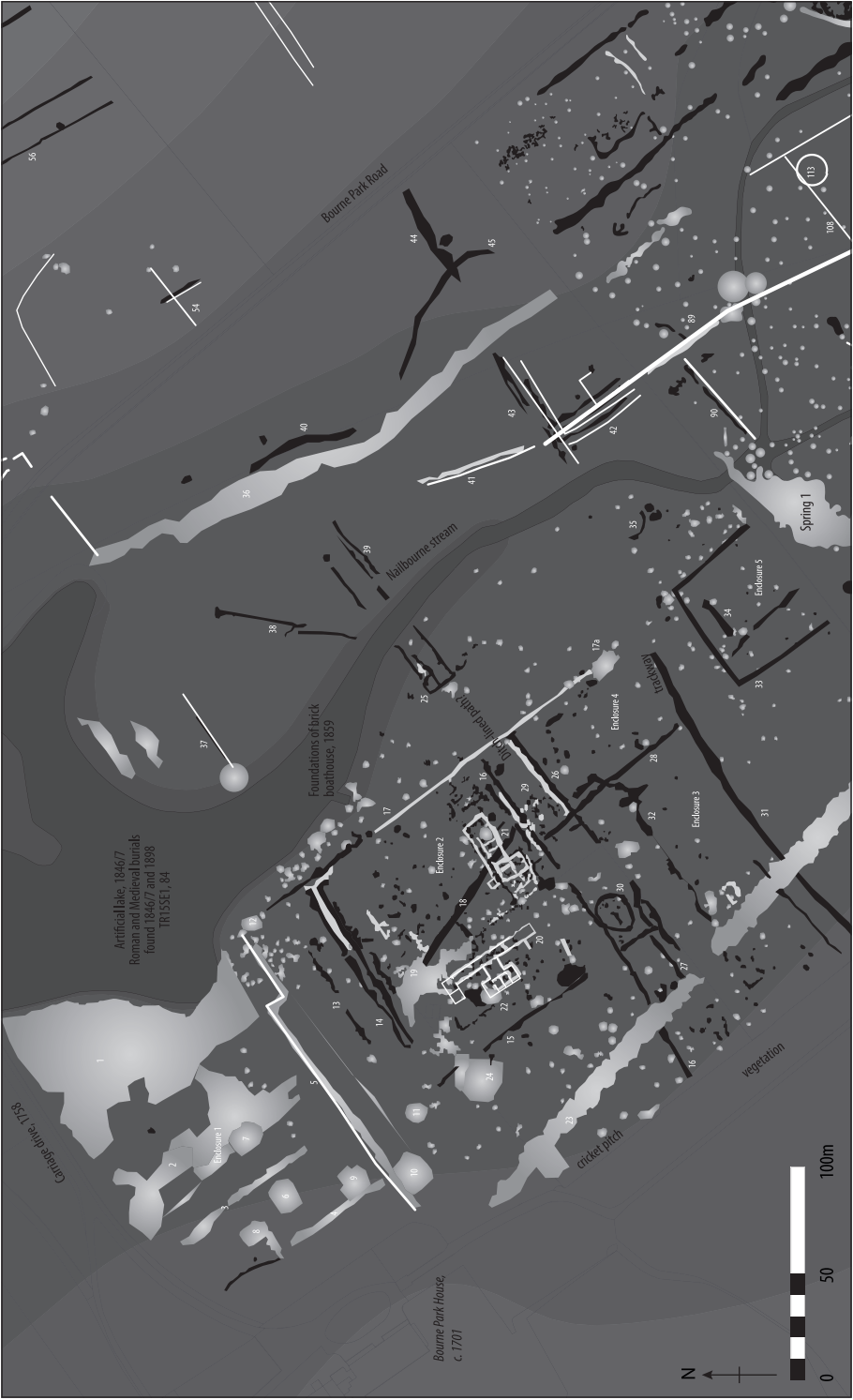


Fig. 5 Field 1, Bourne Park, Bishopsbourne, magnetometry (gradiometry) survey and aerial photographic interpretations. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.



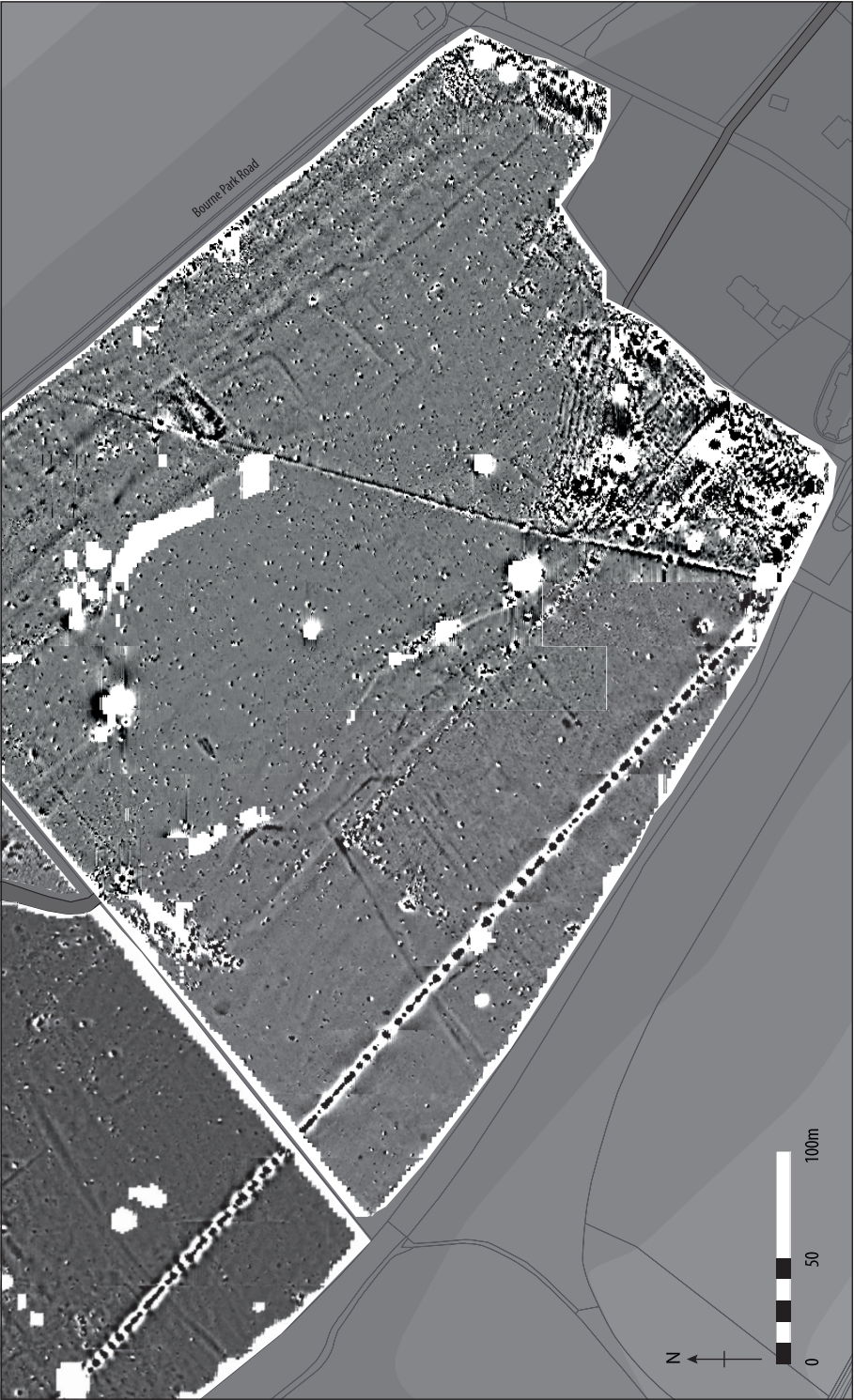


Fig. 6 Field 3, Bourne Park, Bishopsbourne, magnetometry (gradiometry) survey results. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.



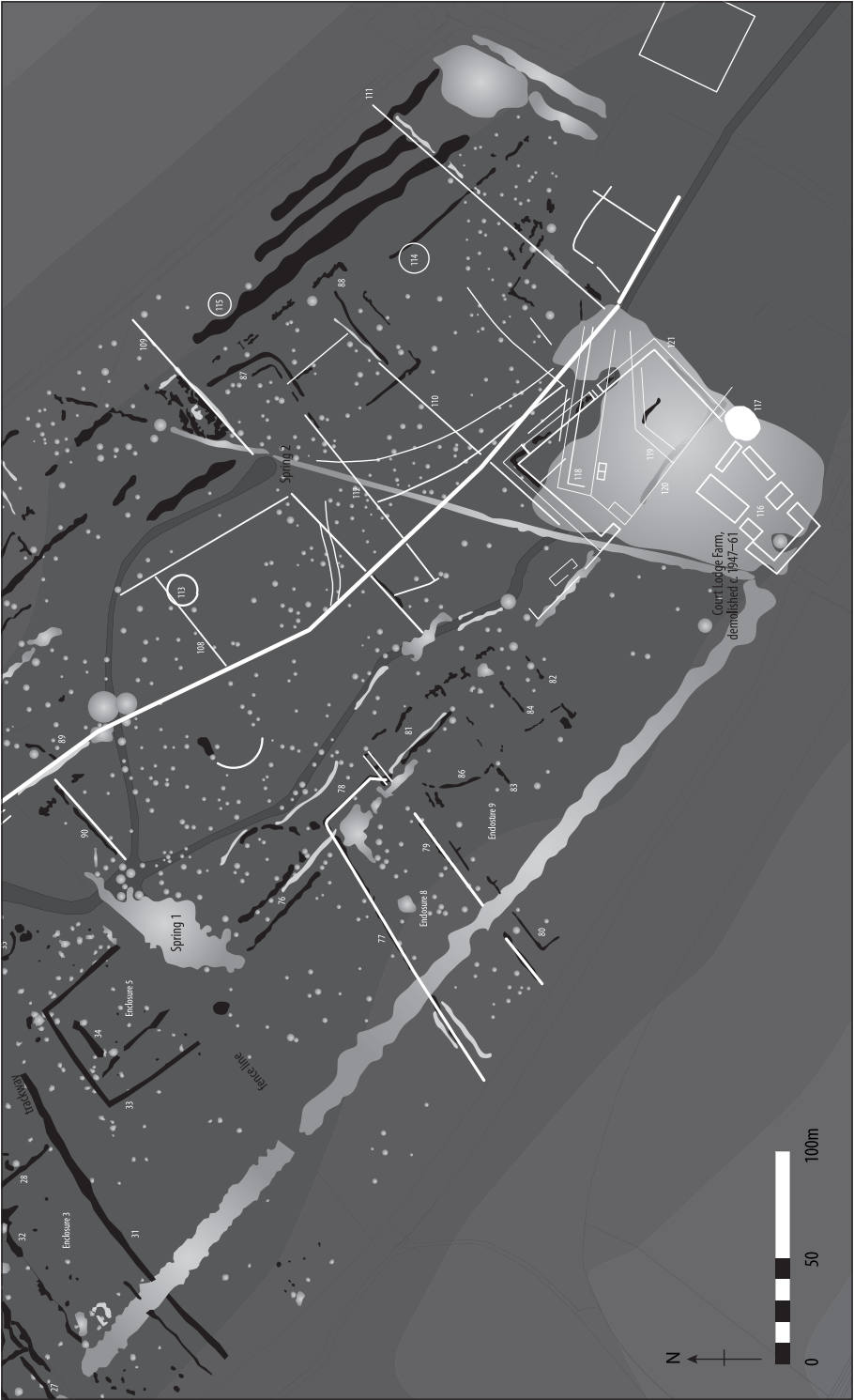


Fig. 7 Field 3, Bourne Park, Bishopscourne, magnetometry (gradiometry) survey and aerial photographic interpretations. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

area separates [1] and [2] as well as [3] and [4] which could indicate a possible terrace associated with Bourne Park House; such terraces or ha-ha walls (remains of which are discernible in the topography of this area) were present before 1845 (Bell 1880–90, 13). A possible rectilinear anomaly within the area of dipoles [1] could represent the pre-1701 house. Within Enclosure 1 are four sub-rectangular dipolar anomalies [6–9].

Enclosure 2 is formed of ditches [14–16]; the negative linear anomaly (boundary wall?) on the eastern side [17] continues to the south-east to form the eastern side of Enclosure 4 and terminates at a large dipolar anomaly [17a]. This possible boundary wall [17] is also aligned with the eastern side of Enclosure 5, which may suggest that Enclosures 2–5 were contemporaneous. Within Enclosure 2 is a low-response, positive anomaly [18], running for approximately 75m north-west/south-east which respects the boundaries of the enclosure and appears to pre-date the structures within it (it is clearest in the deeper GPR slices but does not interrupt the walls of the buildings). The centre of the enclosure revealed a complex area of linear negative responses [20], defining the building first recognised in aerial photographs (K326). On the building's north-western side, a large dipolar anomaly [22] could represent a hearth/furnace on the basis of its relationship to the structures. A second group of negative linear responses [21] represents the building to the east.

High-resolution GPR of Enclosure 2 shows the structures and their architectural detail clearly (**Figs 8–11**) as well as surrounding 'walls' [t, w, and r]. By producing horizontal depth slices (three of which are shown in **Figs 8–10**), some phasing can be suggested for features in this area based on their depth. Building 1 (magnetic anomalies [20]) is formed of a c.50.8m-long (external measurements) room or 'corridor' [a] with a central c.3.6m-wide entrance flanked by supportive bases for possible internal and external pillars/pilasters. The ends of [a] lead to symmetrical wings [b] and [c] which extend back from the same front wall-line as [a] and which each measure c.13.4 x 7m externally; the northern wing appears to be divided into two rooms. On the western side of [a], across from the central entrance and entered through a doorway of the same width, but with angled jambs, and flanked by possible pilasters, is a third T-shaped wing [d] (12.9m long and 8.4m wide, opening to 17.1m wide at the back) containing two identically sized 'rooms' or bases for features (bathing tubs?), together measuring 8.2 by 5.3m externally. Building 1 covered an area of c.564m<sup>2</sup> and, if a single storey, contained c.382m<sup>2</sup> of internal space.

Building 2 (magnetic anomalies [21]) is of a different form and lies at a 92° angle to Building 1. Building 2 is formed by a range of six 'rooms' [f–k] measuring 28.8 x 7.6m externally which comprises four larger rooms [f, h, i and j], one possible corridor [g], and one room [k] which appears to have been reduced in size in a later stage of the building's life to become the ante room to a later apsidal room [q]. These six rooms are fronted by a corridor [l] of the same length, adding 3.1m to the building's width, and flanked at its front (northern) side by two small projecting rooms [m] and [n], measuring 4.3 x 3.5m and 3.7 x 3.7m, respectively. An entrance appears in the front wall of [l], across from [h], and is not in the centre of the façade. At the rear, two rooms, [o] and [p], externally measuring 9.2 x 8.4m (not including the back wall of the main range) and 5.8 x 6.1m, respectively, appear to

have been added onto the south-western side and an apsidal room [q] (a possible bath suite with attached ‘furnace/flue’ represented by a dipolar anomaly) onto its south-eastern side. Thin linear anomalies within [i], [j], and [k] may represent drains or an underlying earlier phase of construction. Building 2 covered an area of  $c.460\text{m}^2$  and, if a single storey, contained  $c.303\text{m}^2$  of internal space.

An area of high electrical resistance (**Fig. 12**) and amorphous magnetic anomalies in the northern area of Enclosure 2 suggests a possible, although less well represented, third building. The GPR shows an area of reflections and a linear anomaly possibly representing a wall [s] offset from a boundary wall [w] and [r]. Taken together with the electrical resistance data, these would not be inconsistent with an area of dense rubble obscuring underlying foundations of a third building.

The three sides – [t], [u] and [v] – of Enclosure 2 which have been captured in the GPR survey show long, thin linear anomalies in the shallower reflections on the western, eastern, and northern sides of the enclosure. From these data, we cannot definitively locate an entrance to Enclosure 2. An inner enclosure wall, aligned to and west of Building 1, is represented by [w] (and perhaps also [r]).

Linear anomalies [x, y, z] may represent a smaller enclosure pre-dating the construction of Buildings 1 and 2 and walls [w] and [t]. If so, linear features [aa] could represent ditches lining an approach path to the predecessor of Building 1, possibly represented by thin linear anomalies [e] shown in lighter colour in **Fig. 11**, probably representing an earlier, perhaps timber, phase of construction.

A second, later, ditch-lined path is formed by anomalies [16], [27] and [26] and continues north-east as [25] and across the stream for  $c.47\text{m}$  as [39] (**Fig. 5**). The perpendicular anomaly within [25] may represent a bridge across the stream. Although not continuous in the magnetic results, it would appear that these ditches continued south-west to the enclosures and there, within these ditches, also lies a sub-circular anomaly [30] containing internal features, which may represent a large barrow or small animal pen.

Enclosure 3 is formed of positive linear anomalies [27], [28], and [31] and may have been subdivided or drained by the possible ditch [32]. Enclosure 4 is formed by ditches [31], [26], [28] and [17]. The positive linear feature [28] which separates Enclosures 3 and 4 terminates at the edge of Enclosure 2 and therefore likely postdates it. Enclosures 3 and 4 appear either to pre- or postdate the ditch-lined ‘path’ [16, 26, 27] because their common ditch [28] crosses it.

Enclosure 5 is formed by positive rectilinear anomaly [33] and contains a possible structure or smaller enclosure [34] represented by positive linear anomalies and two dipolar anomalies at two of the inside corners. The southern side of Enclosure 5 must either lie underneath the area which we could not survey because it was too close to the partly metallic fence between Fields 1 and 3 or be formed by Spring 1. North-east of the fifth enclosure is a faint penannular positive anomaly [35].

Field 1 East demonstrates only sparse presence of geomagnetic anomalies, possibly because alluvial deposition and the meandering course of the stream over the centuries have obscured features. A series of possible ditches or a trackway [43/44] may continue west of the stream as [31] and be a continuation of the ‘trackway’ visible in aerial photographs in Field 5 leading up to the Roman road. Perpendicular anomalies [42] represent part of a much longer anomaly visible in aerial photographs which shows a modern buried pipe linking the manhole



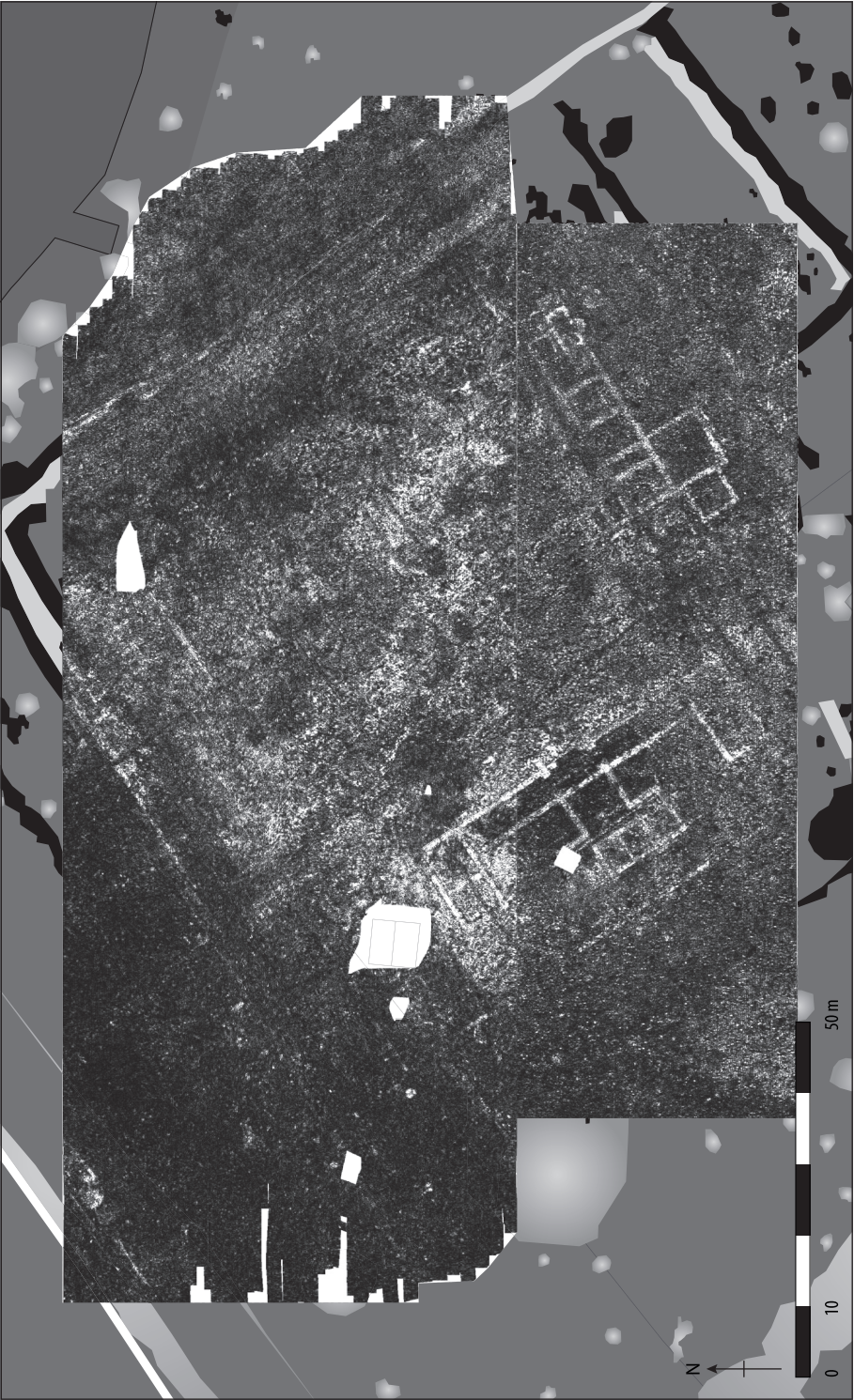


Fig. 8 Field 1 West, Bourne Park, Bishopsbourne, ground-penetrating radar results, horizontal depth slice at estimated depth of 0.40–0.45m. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.



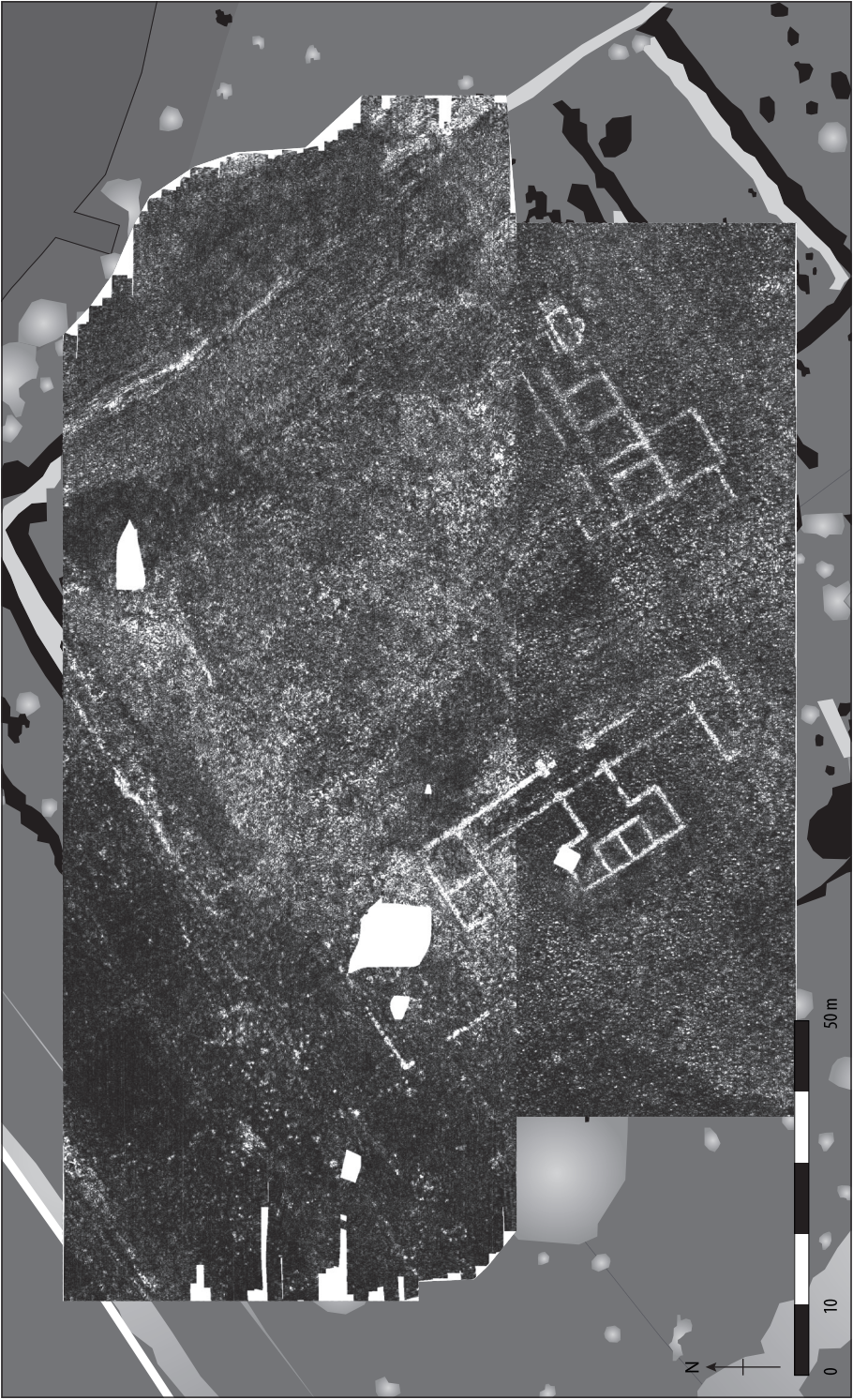


Fig. 9 Field 1 West, Bourne Park, Bishopsbourne, ground-penetrating radar results, horizontal depth slice at estimated depth of 0.50–0.55m. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.



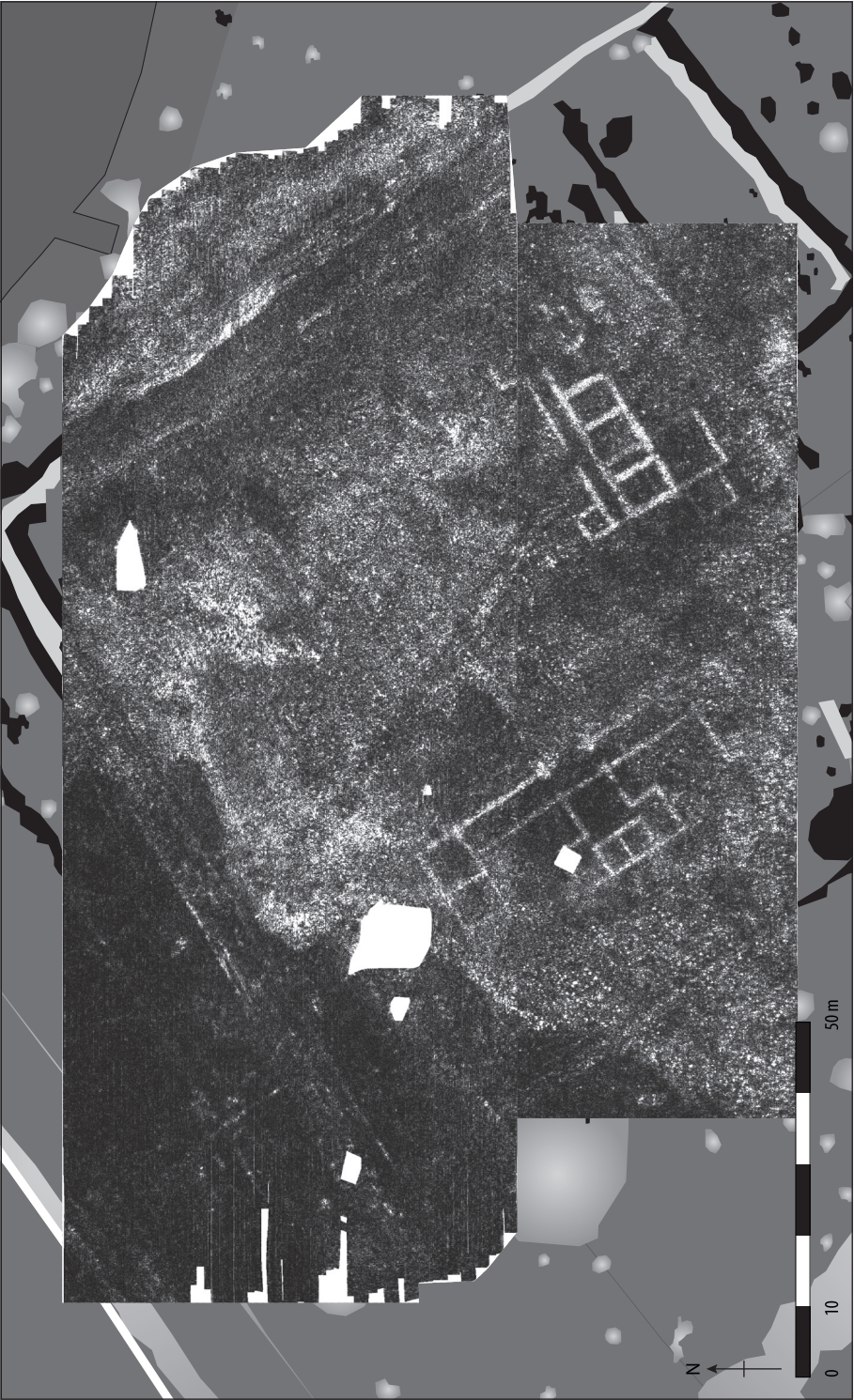


Fig. 10 Field 1 West, Bourne Park, Bishopsbourne, ground-penetrating radar results, horizontal depth slice at estimated depth of 0.75–0.80m. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

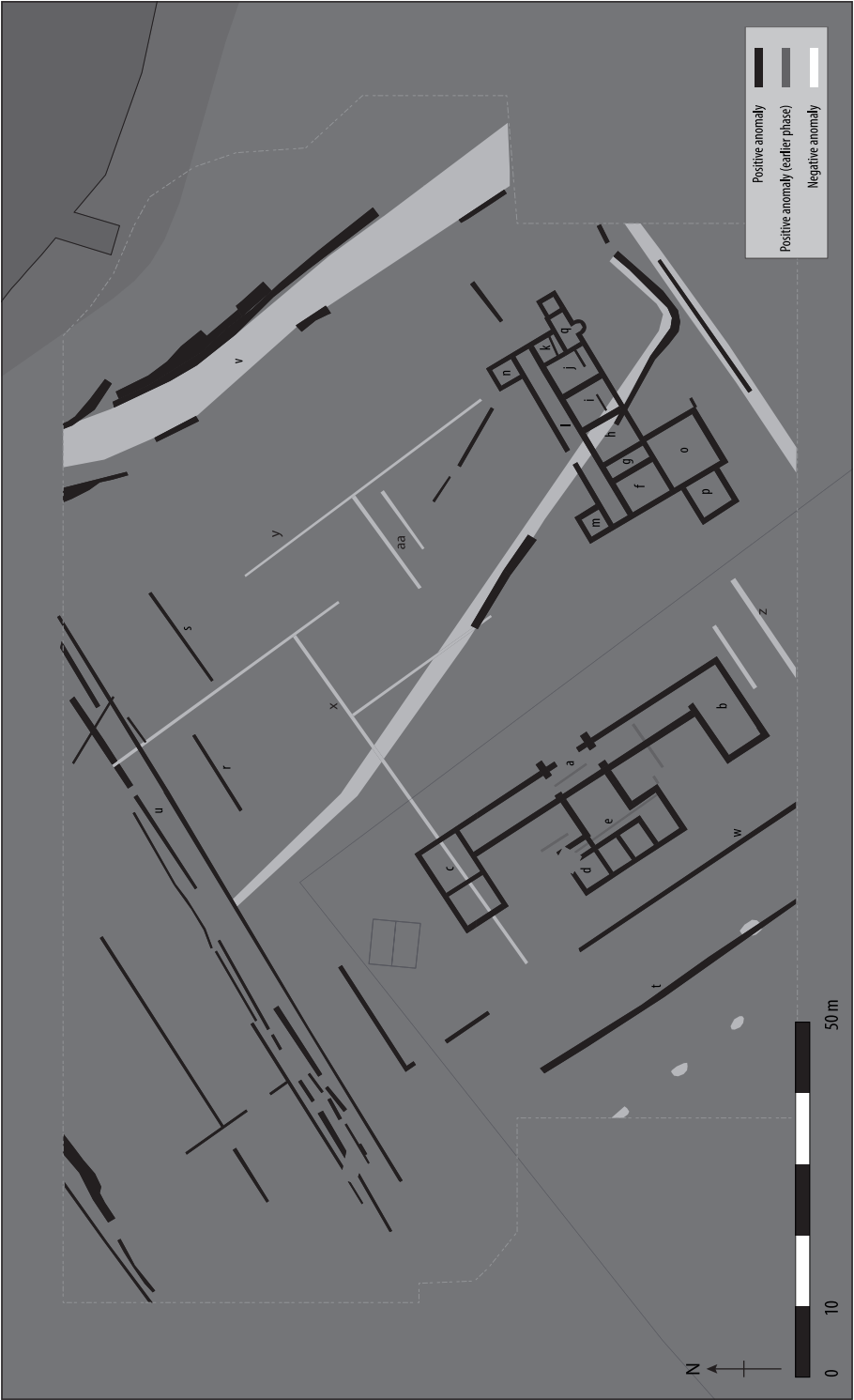


Fig. 11 Field 1 West, Bourne Park, Bishopsbourne, ground-penetrating radar interpretation. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

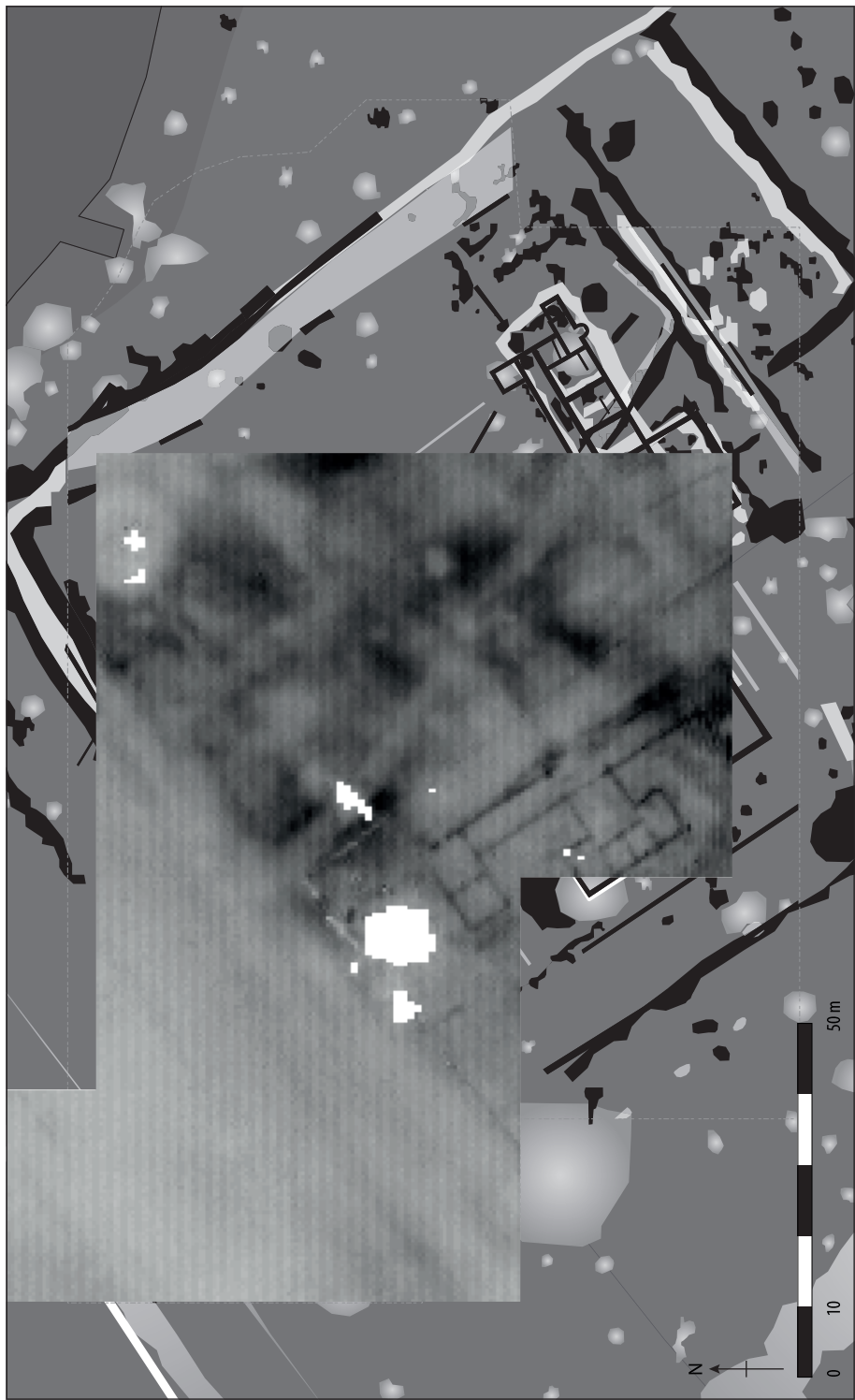


Fig. 12 Field 1 West, Bourne Park, Bishopsbourne, electrical resistance survey results overlain on magnetometry and ground-penetrating radar interpretations. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.



covers (visible as ‘blank’ areas in the data, as we avoided them) and, therefore, should not be read as forming a significant corner with [43]. An approximately 260m-long dipolar anomaly [36] runs broadly north-west/south-east across the field and probably should be interpreted either as a river terrace along with positive anomalies [40] and [45], or possibly as evidence of the 18th/19th-century ditch/channel and fish pond (OSD 107, item number 17; Bell 1880–90, 15).

The area between the two branches of the Nailbourne in Field 3 (**Figs 6–7**) contains cropmarks in aerial photographs, but is relatively ‘quiet’ in the magnetic results, suggesting that the stream-flooding deposition and meandering over time have again obscured underlying features. South-west of the Nailbourne proper and north-east of the branch of the stream into which Spring 2 feeds, natural river terraces are clear in the topography and appear as linear ‘bands’ of anomalies which were found to be coincident with the natural terraces recorded using a differential GPS.

On approximately the same lines as the eastern sides of Enclosures 2, 4, 5, lie the eastern sides of two further enclosures: Enclosure 8 (formed by [77], [78] and [79]) and Enclosure 9 (formed by [80], [81] and [82]), extending just beyond a paleo-terrace, represented by a linear arrangement of positive, negative, and dipolar anomalies [76]. Within Enclosure 9 are at least two positive linear anomalies, [83] and [84], parallel to the long axis of the enclosure which may represent subdivision or phases of this enclosure. The data are not clear, but it is possible that these narrow parallel strips are Medieval tofts/crofts. An apparently elliptical feature [86] is perhaps most likely to be geological. At least two phases of enclosure are apparent east of the Nailbourne in Field 3. Four parallel south-west/north-east divisions appear to break up the area into approximately equal strips (between *c.* 75m and 90m). These boundaries seem to match up to fields present on Ordnance Survey drawings from 1797 and 1799.<sup>4</sup> Two of these boundaries [110] and [111]) are aligned with a yard/garden wall [121] not known from maps but in position and alignment clearly associated with Court Lodge Farm [116], extant until *c.* 1947–61. These features are more clearly visible in aerial photographs than in the magnetic data. A 1903 photograph shows a standing brick structure with a thatched roof and the pond [117] visible in aerial photographs and maps.<sup>5</sup> A possible walled garden [118] aligned to the stream on the side opposite the farm and two other ‘garden boundaries’ [119] and [120] are shown on the same maps as Court Lodge Farm [116], although they may be garden walls associated with Oswald’s Lodge which were removed in *c.* 1945 (Prestige and Farquharson 1958–1970).

Other enclosures represented by linear anomalies [87, 88, and 112] lie on a slightly different alignment. A ring ditch [113] of 15m in diameter crosses boundary [108] and is therefore of a different phase. Two other ring ditches, measuring *c.* 11m [115] and 14.5m [114], lie in the south-eastern part of Field 3.

The majority of Fields 1 and 3 contained small, scattered dipolar responses, likely resulting from the presence of ferrous materials on or near the ground surface. Other modern features include: linear dipole [23], probably a power-cable; dipolar anomaly [24], a large iron roller; irregular dipolar anomaly [19], ferrous material on the ground surface. The large circular dipole adjoining [37] is a modern inspection hatch buried underneath sediment; the remaining five hatches in Field 1 East were avoided and therefore appear as ‘blank’ circles in the data.

Fields 2 and 4, 2012–2014 (**Figs 13–16**)

Fields 4 and 2 are located to the north and east of Field 1, on the slope of the Nailbourne valley as it rises up to Bridge Hill Road. The area of a scheduled monument (barrows and burials; NHLE 465133/K2) extends across these two fields, part of which has been excavated revealing a Late Bronze Age pit and activity (K334/5), Iron Age cremations and occupation (K336), a hexagonal ditched feature (K154) also visible in aerial photographs (and interpreted as Roman, which may be unlikely, see below), and Anglo-Saxon burials (K2) (Wilkinson 2008; Wilkinson and MacPherson-Grant 2014). Excavation had been undertaken in Field 4 of nine barrows identified as Anglo-Saxon in 1771 (Faussett 1856, K2), of three barrows in 1845, also thought to be Anglo-Saxon (Wright 1845, K2), of Roman-period burials including some 4th-century ceramic vessels, inhumation burials, and weaponry in 1833 (K7; Rolfe 1844), and of three 4th-century inhumation burials excavated on the other side of Bridge Hill Road, not in this field, in 1956 (K7; Jenkins 1956). In 1961, during construction for a housing estate on the opposite side of Bridge Hill Road from Field 4, evidence for Iron Age settlement was found (K17) (Watson 1963). Anecdotal mention of a horse burial with significant iron/rusting deposits is noted as having been found by some local boys in c.1871 (Vine 1886, 170). A road (the ‘Kingsbury Road’) crossing through Field 2 from east to west between Bourne Park Road and Bridge Hill Road and continuing opposite the cottages built by Bell in 1857, is visible on Ordnance Survey drawings from 1797 and 1799;<sup>6</sup> and ‘traces’ of it were noted by Vine (1886).

In Field 4, the survey (**Figs 13–14**) identified remains of curvilinear terracing (which must be compared with micro-topographic survey to aid interpretation), two enclosures, the hexagonal feature visible in aerial photographs, at least two ring ditches probably representing barrows, and two possibly circular dipolar features. In Field 2 (**Figs 15–16**), we have identified a major field boundary (probably dating to as late as 1960), at least two enclosures (one multi-phase), an area of concentrated dipolar responses, one possibly circular dipolar feature, one ring ditch, double rows of pit alignments, and a second hexagonal feature in aerial photographs.

*Detailed description of anomalies and features*

In Field 4 (**Figs 13–14**), Enclosure 10 is represented by positive linear anomalies [91] and also defined by an area of dense dipolar anomalies [92]; an area of nettles with modern cement and brick fragments currently lies on the surface. Between 1856 and 1858 areas of ‘plantation’ for clumps of trees were laid out here (Bell 1880–90, 29–30), which are detailed on the 1873 Ordnance Survey map. The ‘plantation’ in the area of Enclosure 10 remained a heavily wooded area in a 1961 aerial photograph and as an area of partially exposed chalk in the 1990–2008 images.

Enclosure 11 is bounded on three sides by positive linear anomalies [93], [94] and, possibly, [95] and on the eastern/north-eastern side either by a ditch underneath the current wooded area or by the Canterbury-Dover road. Along Bridge Hill Road, modern utilities and features associated with the modern road

have created a zone of dipolar disturbance [96] within which lower-response features are not visible, although a 3–5m gap was left between the fence and the survey area. Within Enclosure 11 is the hexagonal feature [97], represented in the survey data by a large dipolar anomaly and a disturbed area where the excavation trench was located (Wilkinson 2008, fig. 54). The hexagonal anomaly recorded by the geophysical survey measures *c.* 25m north–south and 20m east–west and is composed of a solid area of dipoles (i.e. the difference between the ditch known from excavation and the internal area is not discernible). In the aerial imagery, 14 ring ditches [123] representing barrows measuring between *c.* 3.75m and 10.5m in diameter are visible. The other inhumation burials, known from excavation (Wilkinson 2008; Wilkinson and MacPherson-Grant 2014) within Enclosure 11 appear as small, elongated positive anomalies. Two large areas of approximately-circular dipolar anomalies [98] and [99] (measuring *c.* 37m and 30m in diameter, respectively) may represent ring ditches with ferrous material in their fill, perhaps Bronze Age barrows. Further north, near ‘Old England’s Hole’ (K4) are two clear ring ditches [100] and [101] (measuring *c.* 8m and 9.3m in diameter, respectively) with central features likely to represent the burial cut beneath a mound within the ditch. A positive linear anomaly cuts through one of these barrows [100]. Another partial penannular ditch with a possible ‘burial cut’ is visible as [102].

Curvilinear positive anomalies [103–107] (and possibly also [95]) may represent multiple ditches or terracing partially following the strike of the hill and possibly enclosing a large area from the crest of the hill (in the north-eastern part of Enclosure 11). The linear feature [122] in the aerial photographs and detected in parts in the magnetic data appears to be the road/track present on 18th- and 19th-century drawings and maps, constructed at an unknown date on an alignment to avoid the barrows [123].

In Field 2 (**Figs 15–16**), Enclosure 6 (K155), measuring *c.* 60–70m north–south and *c.* 66m east–west, is represented by positive linear anomalies [65] and [66], within which are a scattering of small positive and dipolar anomalies as well as a wide positive linear anomaly [64] parallel to, and within, the eastern side of the enclosure. Positive linear anomaly [63] (K156) may represent a terrace and runs parallel to and south of [65]. The enclosure appears to have been longer (*c.* 100m) north–south in one phase as a second south-eastern corner is visible [62], which contains a large positive anomaly, perhaps a large pit. This enclosure does not share the alignment of the others with the exception of the northern side of Enclosure 11 represented by positive linear anomaly [93].

Across the area of Enclosure 6 are two double rows of tree-pit alignments [67] and [68], spaced *c.* 13m apart, running for *c.* 340m from the top of the hill in the north-east down the slope to the south-west as far as Bourne Park Road (although not continuously present in the magnetic data). These features represent the avenue of limes, planted probably *c.* 1701, mentioned above and removed probably *c.* 1758 when the carriage drive bridge was constructed (Bell 1880–90, 13, 15).

Enclosure 7 appears to have had at least three phases, and three sizes (measuring at least *c.* 190 x 160m, 120 x 145m, and 75 x 135m); features within it are partially obscured by an area of trees planted in 1856–58 (Bell 1880–90). In its largest form, it was of a different phase than the extended version of Enclosure 6 because the northernmost ditch [59] of Enclosure 7 crosses the southern part [62] of

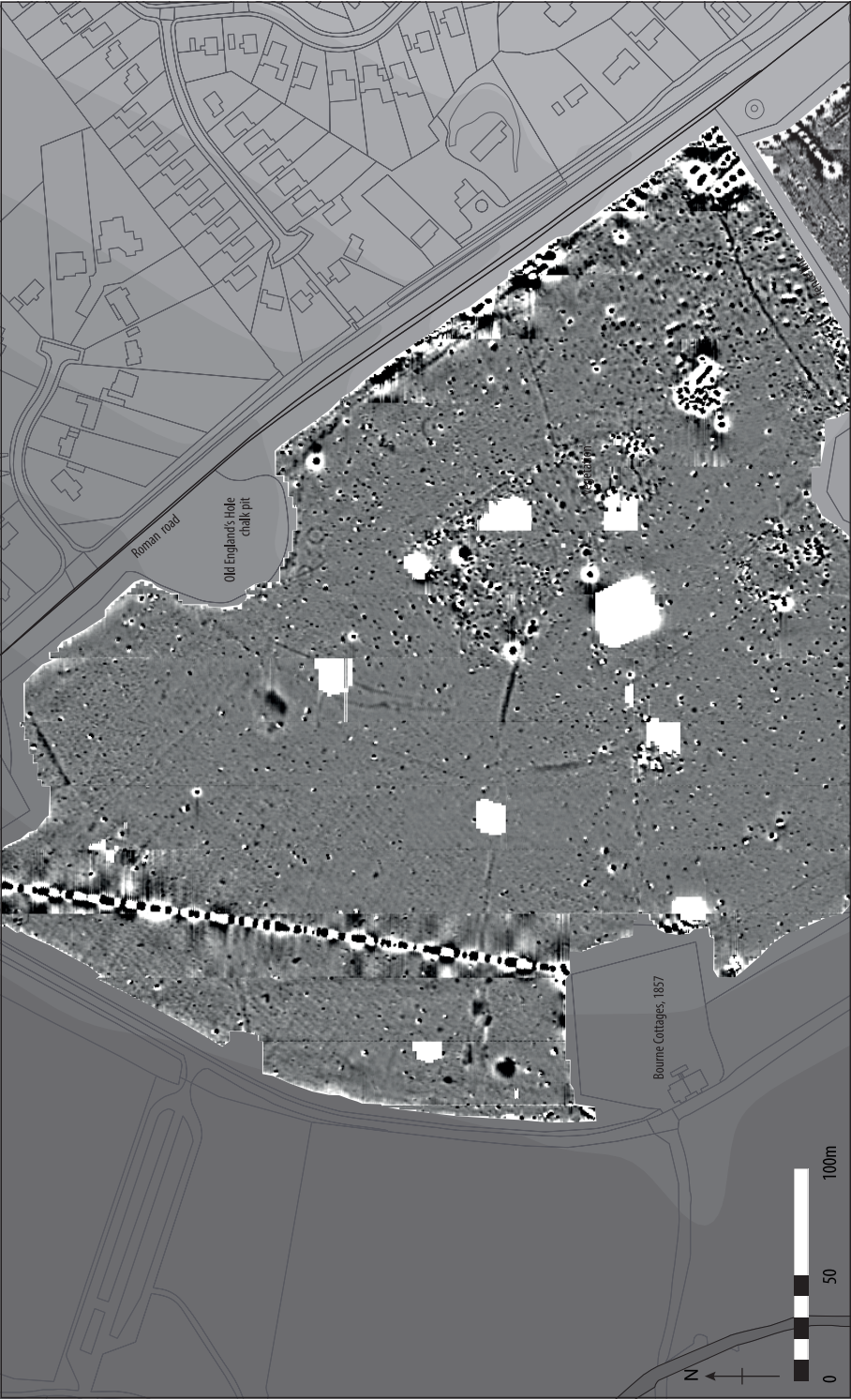


Fig. 13 Field 4, Bourne Park, Bishopscourne, magnetometry (gradiometry) survey results. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.



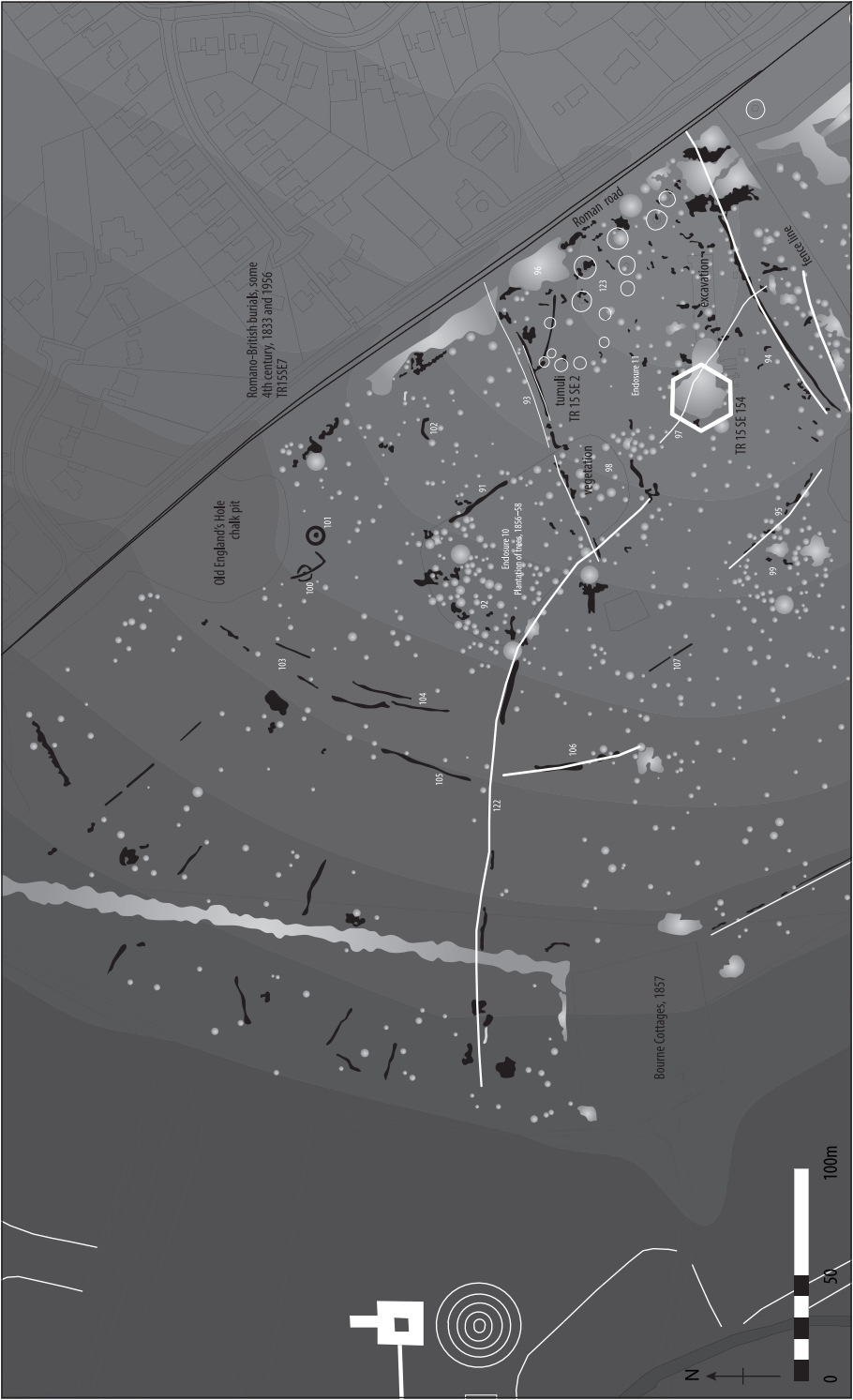


Fig. 14 Field 4, Bourne Park, Bishopsbourne, magnetometry (gradiometry) survey and aerial photographic interpretations. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

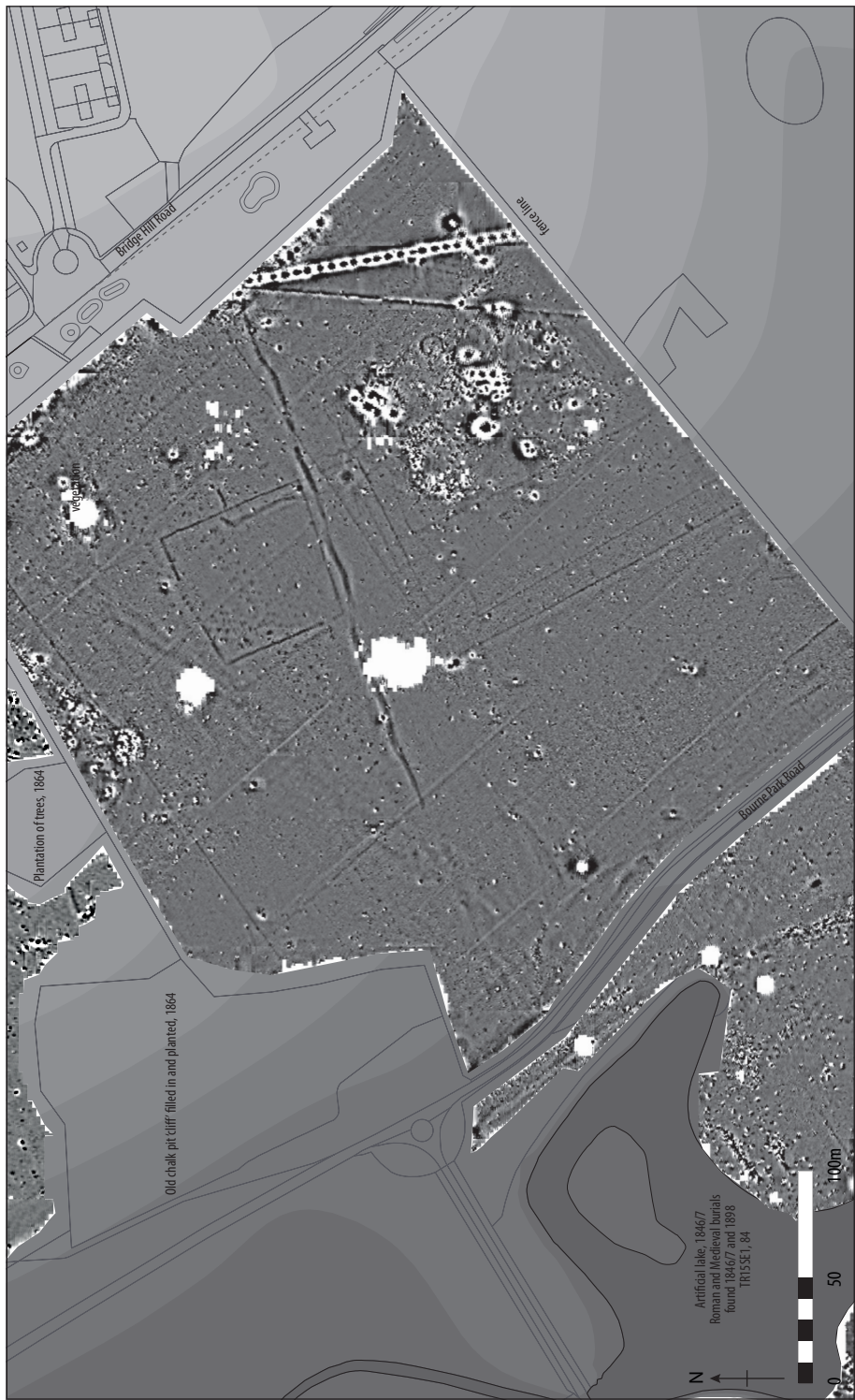


Fig. 15 Field 2, Bourne Park, Bishopsbourne, magnetometry (gradiometry) survey results. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service.

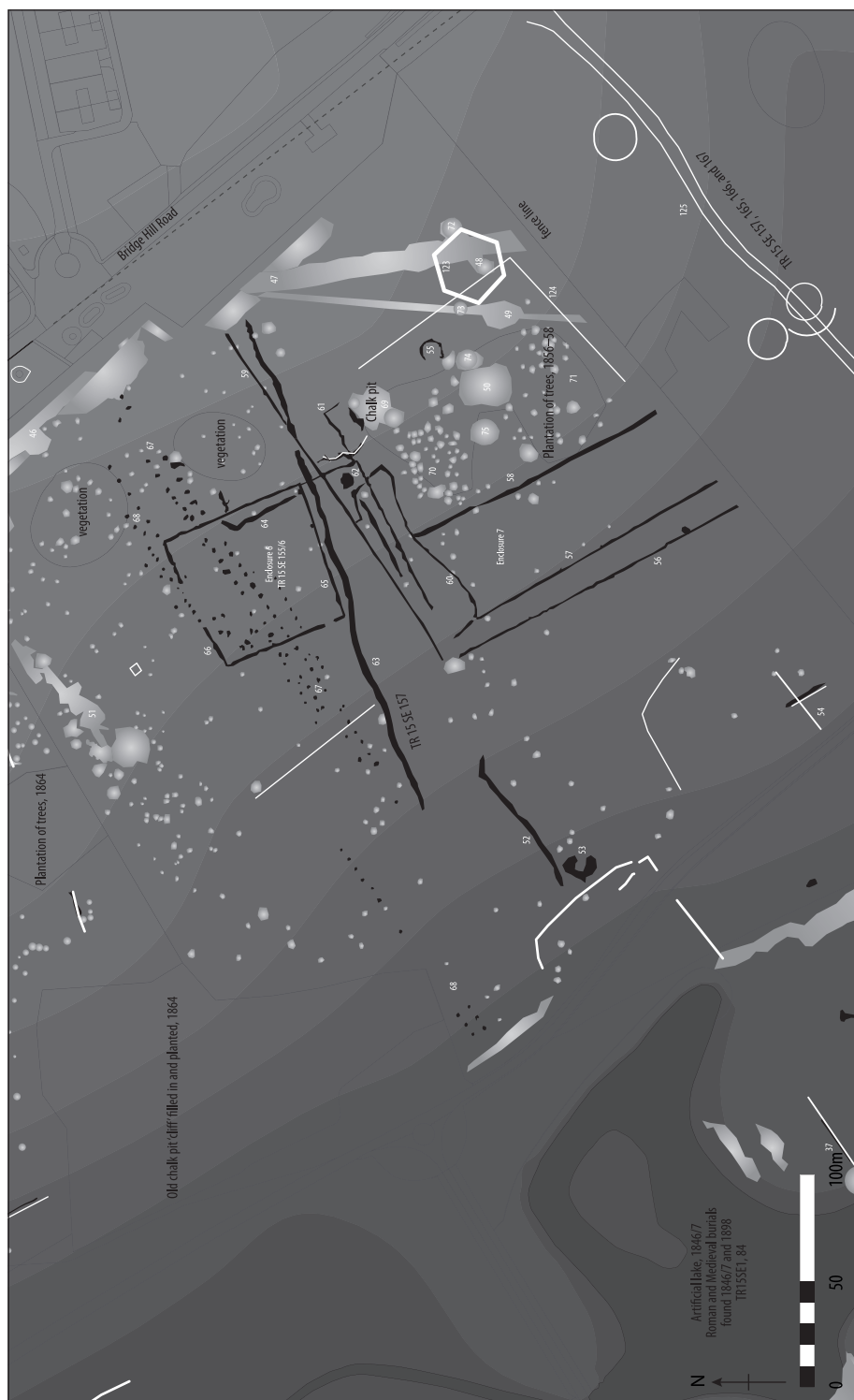


Fig. 16 Field 2, Bourne Park, Bishopsbourne, magnetometry (gradiometry) survey and aerial photographic interpretations. Background data: Crown Copyright/database right 2014. An Ordnance Survey/EDINA supplied service



Enclosure 6. The three phases of western ditches of Enclosure 7 are represented by [56], [57] and [58]; the phases of the northern ditches are represented by [61] and [59], and possibly [60]. The eastern and southern sides [124] of one cross the second (unexcavated) hexagonal feature [123]. Within the smallest version of the enclosure, bounded by [58] and [61] are strongly dipolar magnetic responses [50], which may be a result of debris collecting in the plantation of trees, or may represent underlying features. The largest dipolar anomaly [69] is in an area of depression representing an old chalk quarry surrounded by trees; circular dipoles [72–75] are spaced *c.* 25m–35m apart and one [75] is represented by a distinct depression on the surface. The approximately circular arrangement of small dipolar anomalies [70] could represent a Bronze Age barrow similar to [98] and [99] to the north in Field 4; the remaining scattered dipolar anomalies in this enclosure may also be burials, based on analogy with the known burials along this ridge and the Roman road. To the north-east of the large concentration of dipolar anomalies [50] is another 11.5m ring ditch [55], which is incomplete on its western side and may represent a barrow.

The western part of Field 2 demonstrates a relative scarcity of archaeologically significant geomagnetic anomalies. A 71.25m-long linear, positive anomaly [52] and *c.* 22.5m-long linear positive anomaly [54] appear to respect the predominant orientation of anomalies in Field 1. Penannular positive anomaly [53], a possible ring ditch, has a diameter of *c.* 16m and opens (or fades in the magnetic response) to the east.

Towards the north-western edge of the survey area [51] is an area of disturbed ground where iron/steel rods/cables were observed at, or slightly below, the ground surface. This area also contains a chalk platform, visible as a topographically raised area which, like Enclosure 10, was also wooded in aerial photographs and maps up to 1960. Field 2 is also crossed by a series of parallel, linear anomalies which can be related to modern agricultural practices visible in a 1960 aerial photograph and are, therefore, not illustrated in Fig. 16. The eastern edge of this field was characterised by large dipolar responses [46] and [47], in part these may have resulted from the extensive metal fencing along the edge of the field. Additionally, a pair of long, linear dipolar anomalies [48, 49] representing buried cables or pipes cross the south-eastern corner of the field.

#### BASIC INTERPRETATION

*Bronze Age:* the approximately circular, large dipolar features [70], [98], and [99] may represent Bronze Age barrows. The large ring ditches visible in aerial photographs in Field 5 (where survey was undertaken in 2015, but not included here) are likely to represent Bronze Age barrows because of their size. At least one of these (which did not appear in the 2015 magnetic results and may be a false anomaly in the aerial imagery) crosses, and therefore is not contemporaneous with, a trackway which runs alongside the other two. The ring ditches in Field 3 are of a size (11–15m) more likely to represent Bronze Age barrows than Anglo-Saxon, although they may also represent drip gullies surrounding Iron Age roundhouses (see below). This ridge between Canterbury and Dover contains along it other Bronze Age barrows and burials (e.g. KHER TR 25 SW 10; K18, K83; Macpherson-

Grant 1980), suggesting that its funerary use dates back to at least the early first millennium BC. Excavation has located Late Bronze Age/Early Iron Age pits and ditches within Field 4 (Wilkinson 2008).

*Iron Age:* Enclosure 6 appears to have been altered to accommodate the northernmost ditch of Enclosure 7 and, unlike most of the other enclosures, its associated terrace/ditch is positioned at a  $c.70^\circ$  angle to the road. The enclosure appears to have an opening or entrance at its northern side, while internal features form no obvious structural patterns; its morphology suggests that it could have been either a mortuary enclosure or (perhaps more likely) a domestic/farmstead enclosure.

Curvilinear terracing [103–107] and possibly [95] in Field 4 form what could be a large Iron Age enclosure surrounding the high part of the hill, equating approximately to the features Vine suggested could be an ‘*oppidum*’ (1886, 170–73). Linear earthworks (K135/6) east/north-east of Bridge Hill Road may be a continuation of this enclosure. This enclosure may have acted as a control point along the trackway/road between Canterbury and Dover and may have contained within it the Iron Age pits (K17) excavated on Bridge Hill ahead of the construction of housing across Bridge Hill Road from Field 4 in 1961 (Watson 1963). The ring ditches in Field 3 represent either barrows or perhaps the gullies of roundhouses, but their association with the enclosures and proximity to the stream may suggest that they are more likely to be buildings.

Excavated funerary evidence from the Iron Age along the Dover road and in the Elham Valley is not as common as in earlier and later periods. For example, the 1st-century BC cremation burial in an Iron helmet containing a La Tène type brooch,<sup>7</sup> although the location is not disclosed, was not located along this ridge. Other Iron Age activity is, however, apparent from the coin finds from Bridge and Bishopsbourne: an Iron Age silver coin (K331) found in the Park and other Iron Age coins are known from the Bishopsbourne and Bridge area, including six Iron Age copper-alloy coins of the *Cantii*,<sup>8</sup> one of the Atrebates, two Thurrock-type potins of the late second/early first century BC, a struck gold quarter stater of the Morini dating to  $c.75$ –60 BC, an imported Gaulish cast bronze potin dated to  $c.100$ –50 BC, a stater of the Durotriges dating to the second half of the first century BC and an Iron Age silver coin of Cunobelin from Bridge.<sup>9</sup>

*Roman period:* Enclosure 7 was built with its northernmost ditch at an angle perpendicular to the Roman road and perpendicular/parallel alignments to the road might, perhaps, be more likely in the Roman period than in others. However, the road itself may have been preceded by a pre-Roman trackway and the exact date of the metalling is not known. Ditch [59] of Enclosure 7 shares the same alignments as those west of the Nailbourne, which may be evidence to suggest contemporaneity. Enclosure 7 and Enclosure 6 were probably at least partly contemporaneous. Three different ditches on each side of Enclosure 7 seem to suggest it was altered in size, probably increasing, as it appears to have used the southernmost ditch of Enclosure 6 phase 1 [61] as its northern side in at least one, if not two, phases. Results from the 2015 survey indicate that Enclosure 7 ditch [57] crossed the trackway in Field 5, continuing south-east to another, perpendicular, ditch, whereas the outer ditch [58] terminated at the trackway.

A ditch-lined path [25], [39] led from the south-west of Enclosure 7 down to Enclosure 2, across the stream, perhaps including a bridge or ford [25]. Another trackway [31], [43], [44], and [125] connects Enclosures 2–5 to the road and appears to continue to the south-west, perhaps west to the area of Roman burials in Gorsley Wood (K8, Vine 1886, xi), with which the trackway is approximately in alignment.

The enclosures appear to be defined by ditches, but Enclosure 2 also contains an interior wall on at least two sides, c.7m–11m inside the ditches. Within Enclosure 2, Building 1 has an uncommon ground plan for which we have yet to find a close parallel, although Winterton villa in Lincolnshire is similar (Stead 1976). Its wide façade suggests that it served to communicate wealth and status to those viewing it from the road. It may have contained a bathing suite or a heated room for other functions in the T-shaped wing, a view supported by the large dipolar anomaly [22], which could represent the remains of a furnace/flue. Building 2 appears Romano-British in character and can be compared to many similar row-type buildings with a corridor and pavilions added; this structure is perhaps most similar to Mansfield Woodhouse in Nottinghamshire (Rooke 1787). By association with Building 2 and the presence of metal-detected Roman coins and surface scatters of pottery, it is likely that the other structure(s), Building 1 and the possible third building within the northern part of the enclosure, are also of Roman date, and all of these may overlie earlier (timber?) structures as is common on many rural settlement sites. Thinner linear anomalies in the GPR may represent such underlying structures.

Funerary activity along the Dover road in this area in the Roman period is evident (e.g. K7; Jenkins 1956, 248; Haverfield *et al.* 1932, 148; Rolfe 1844, 279; possibly K5; Jessup 1943, 69). Four cremations and 13 inhumations (K26), dating to c.3rd–5th centuries, were excavated in 1973–4 at the south-eastern edge of the field south of Bourne Park and east of Bishopsbourne village. A burial area in the valley is represented by Romano-British cremation burials, inhumations, and associated artefacts (K1, K84), including a coin of Carausius (c.AD 286–293), which were discovered during excavations and improvements for the artificial lake in 1846 and 1898 (Bell 1848, 47–48; Bell 1880–90; Haverfield *et al.* 1932, 147). Lord A. Conyngham also excavated a tumulus near ‘Old England’s Hole’ containing an inhumation burial of possible Roman or early Medieval date containing a ‘breastplate of silver, pierced as by a spear, a curved sword six inches out of line, two bronze shoulder-pieces, four spear-heads, and a wooden vessel banded with bronze bands’ (Vine 1886, 173).<sup>10</sup>

*Early Medieval period:* Enclosure 11, in Field 4, may have defined the boundary of the partially excavated early Medieval cemetery, within which burials have been dated from the 5th–7th centuries (K2, K154, Wilkinson 2008, Wright 1845). More than 100 tumuli mounds were visible in this area in 1771 (Faussett 1856), but have since been ploughed down; 14 are visible as cropmarks, six remain as mounds in the wooded area along the road, and two or three, [100], [101] and possibly [102], are further barrows identified in the survey. The sizes of these barrows vary widely, perhaps suggesting a range of dates and/or statuses of the individuals interred. Enclosure 7 is also a possible burial enclosure, containing within it at least one ring ditch [55].



Early Medieval objects found in Bourne Park include an Anglo-Saxon brooch and buckle (K329) as well as several late 7th-century objects found in early Medieval graves (Wilkinson 2008, Wilkinson and Macpherson-Grant 2014). In the Bridge and Bishopsbourne area more generally, other objects that have been found include a gilt copper-alloy brooch dating to c.500–560, a strap-end with zoomorphic terminal from the late 8th to the late 11th century, and a late Anglo-Saxon dagger pommel.<sup>11</sup>

*Medieval and Post-Medieval periods:* Enclosures 8 and 9 appear contemporaneous and because of their shape and possible internal strip divisions, could represent Medieval tofts/crofts. South-east of these enclosures, the original Court Lodge Farm (KHER MKE86425) dates to c.1540, and Court House (K241), a Grade II listed building just south of Court Lodge Farm, dates from 1433–1466. Bridge Place (K27), north-west of the Park, dates to 1667–1729 and the predecessor of Bourne Park House is of unknown date. In c.1701, Bourne Park House was constructed and associated landscaping undertaken in and around Enclosure 1 (perhaps on top of the remains of the manor house that predates the current Queen Anne structure which may be visible [1] in the geophysics results).

The double rows of pits [67] and [68] in Field 2 represent the avenue of limes present from c.1701 to 1758, which were removed to construct the new carriage drive (Bell 1880–90, 13). The two hexagonal features [97] and [123] are both c.148m either side of this avenue, and are on the same alignment and lie at the same distance from the Dover road. It is possible, therefore, that the hexagons and the avenue of trees were part of the same c.1701 programme, although excavation (Wilkinson 2008, Wilkinson and Macpherson-Grant 2014) suggested that the northern of the two hexagons was cut by burials of 5th/6th-century date. A garden wall (?) perhaps associated with Oswald's Lodge, may be found at the southern part of Field 3 and the other boundaries in Field 3 appear to have been present in the 18th and 19th centuries. The artificial lake, brick foundations of a boathouse, cottages and lodges in the Park, and several landscaping features date to the 19th century.

Enclosure 10 and the raised chalk platform of dipolar anomalies [51] are likely to be related to WWII activities, perhaps to the nearby 1940 flame-projecting installation (K281). The remains of cement and brick on the surface may be related to this, or another, defensive feature.

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#### ENDNOTES

<sup>1</sup> For TR 15 SE 1 and 84, see Bell 1848, 47-48, Haverfield et al. 1932, 147. For TR 15 SE 2 and 154, see Faussett 1856, Meaney 1964, Smith 1908, Wilkinson 2008 and Wright 1845. For TR 15 SE 3, see Ashbee and Dunning 1960. For TR 15 SE 4 (at or near), see Vine 1886, 173. For TR 15 SE 5, see Jessup 1943, 69. For TR 15 SE 6, see Faussett 1856, Meaney 1964. For TR 15 SE 7, see Jenkins 1956, 248, Haverfield et al. 1932, 148, Wright 1845, 279. For TR 15 SE 26, see DOE 1973, Webster and Cherry 1974. For TR 15 SE 32, see DOE 1973, Journ. B.A.A. 1856, Webster and Cherry 1974. For TR 15 SE 83, see Macpherson-Grant 1980, KAS Newsletter 2013, No. 95.

<sup>2</sup> E.g. Wilkinson 2008, Wilkinson and Macpherson-Grant 2014; TR 15 SE 328, 329, 330, 331.

<sup>3</sup> Previously known as the 'Cold Bath', Bell 1880-90, or the 'Romans' Cold Bath', Vine 1886, 198)

<sup>4</sup> OSD 107 (PT2), item number 6 and OSD 107/109, item number 6.

<sup>5</sup> See [www.francisfrith.com](http://www.francisfrith.com), negative number 51059.

<sup>6</sup> OSD 107, item number 17; OSD 107 (PT2), item number 6; and OSD 107/109, item number 6).

<sup>7</sup> Portable Antiquities Scheme KENT-BEC6E6, KENT-FA8E56.

<sup>8</sup> Celtic Coin Index (CCI), 950139, 95014, 950933, 950155, 962323; Portable Antiquities Scheme (PAS), KENT246)

<sup>9</sup> Finds references: Atreates (CCI 950154); potins (PAS KENT-BEFA55, KENT-0BDD22); stater (PAS KENT-134AD2); Gaulish cast bronze potin (PAS KENT-01D293); Durotriges stater (PAS KENT-0BC156); Cunobelin coin (CCI 950166).

<sup>10</sup> Early Medieval is more likely given the description, but these objects have not been located and examined and so included here as Vine suggested that Conyngham, the first president of the BAA, believed it to be Roman.

<sup>11</sup> PAS references: 7th-century objects (PAS KENT-BB15E5); gilt copper-alloy brooch (PAS KENT5131); strap-end (PAS KENT-782071); dagger pommel (PAS KENT-FE45C7).

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